IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF MINNESOTA

Riley Johannessohn, Daniel C. Badilla, James Kelley, Kevin R. Wonders, William Bates, and James Pinion,)))
Plaintiffs,) CLASS ACTION
v.) 16-cv-3348-NEB-LIB
Polaris Industries Inc.,)
Defendant.)))

DEFENDANT POLARIS INDUSTRIES INC.'S MEMORANDUM IN SUPPORT OF ITS MOTION TO EXCLUDE THE OPINIONS OF SARAH BUTLER AND RICHARD J. EICHMANN UNDER RULE 702 AND *DAUBERT*

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INTRODUCTION

Plaintiffs seek to certify a class of purchasers of new Polaris Sportsman all-terrain vehicles ("ATVs"), relying on two alleged "experts" to establish common economic injury and "class-wide" damages in accordance with Rule 23(b)(3), Fed. R. Civ. Pro.¹

Sarah Butler, who has a Master's Degree in Sociology, conducted a "conjoint" internet survey² to determine whether potential ATV purchasers would have been willing to pay the same or pay less for a Polaris Sportsman ATV had they been given an exhaust heat warning invented by Butler. Based upon her survey, Butler concludes that, had her exhaust heat warning been given to consumers in the class, their "willingness-to-pay" for Polaris ATVs would be \$1,593, \$1,614, or \$2,347 less for each ATV purchase. Butler admits, however, that she is not a damages expert and that her "willingness-to-pay" numbers are not damages.

Richard J. Eichmann, who has a Master's Degree in Economics, took Butler's "willingness-to-pay" numbers and treated them as reflecting a decline or downward shift in the "demand curve" of ATV purchasers who had been given Butler's exhaust heat

Pls. Mem. In Support Of Motion For Class Certification, Dkt No. 334, § II.E.

² A "conjoint survey" is intended to elicit information on how people value (or are willing-to-pay for) different attributes (features) of a product and is typically used in marketing exercises.

³ A "demand curve" is a representation of the relationship between price and quantity demanded, usually depicted by economists as a downward-sloping curve on a graph showing how the demand for a product varies with changes in its price.

warning. He then engaged in an economic "market simulation" analysis⁴ to estimate what he opines is the lower purchase price the putative class should have paid for Polaris ATVs. According to Eichmann, Polaris allegedly overcharged ATV purchasers either or in aggregate class-wide damages. Eichmann did not, however, calculate any named plaintiff's or other individual ATV purchaser's damages, nor provide a common method for determining any individual class member's fact of injury or damages.

As an alternative damages measure, Eichmann calculated what he claims it would cost to repair the alleged excessive exhaust heat defect in all of the subject ATVs. Eichmann arrived at his estimate using data from plaintiffs' engineering expert Colin Jordan, who calculated purported cost-of-repair damages for each model year ATV. Eichmann uncritically accepted Jordan's estimates, selected the midpoint between the highest and lowest model year estimates, and then multiplied that midpoint by the number of ATVs at issue. Eichmann estimated in an aggregate class-wide cost-of-repair damages. He calculated no estimate of cost-of-repair damages, if any, for named plaintiffs or anyone else.

⁴ A "market simulation" analysis is a specialized economic and statistical analysis that combines estimates of consumer demand and estimates of the supply side of the market to determine what the market equilibrium price for a product would be in a hypothetical state of the world—in the case here, if the Butler exhaust heat warning had been given.

The opinions and work of Butler and Eichmann fail *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993) and Rule 702, and should be rejected as a matter of law.⁵

First, Butler and Eichmann are not qualified to give their opinions. Butler is not a damages expert, nor an expert in estimating demand curves, and did not attempt to estimate a demand curve in this case. She is also not an expert in designing or conducting a conjoint survey analysis. Eichmann, on the other hand, lacks both the expertise and experience necessary to conduct a "market simulation"—a specialized economic analysis he has never done before.

Second, despite Butler's lack of expertise in demand curves, Eichmann mistakenly assumed that Butler's "willingness-to-pay" estimates, which he used in his "market simulation," provided the necessary demand curve information. But Butler's willingness-to-pay estimates did no such thing and, as a result, the inputs for Eichmann's market simulation were erroneous.

Third, Butler's willingness-to-pay estimates should be excluded due to methodological flaws in both her conjoint survey and her statistical analysis of the survey data. Her survey (i) is based on a proposition that is both wrong and irrelevant; (ii) was not based on a random and representative sample; and (iii) employed a hybrid experimental-test/conjoint-survey design that is unsupported in the academic literature and

⁵ Polaris moves to exclude Butler's and Eichmann's opinions at this time because plaintiffs rely on them in connection with class certification. Polaris will move to exclude Jordan's opinions prior to trial, if any.

unrecognized by the acknowledged experts in the field. Butler's inappropriate statistical analysis of the survey data further discredits her results.

Fourth, Eichmann's "market simulation" analysis, partly based on data from Butler's survey, was improperly designed and implemented. This is Eichmann's first-ever attempt to perform a "market simulation." Experts in the field who possess the deep economic and statistical education and experience Eichmann lacks agree that Eichmann's inaugural attempt at a "market simulation" was divorced from the accepted scientific method. Professor Daniel McFadden—a Nobel prize winner in economics for his work in the field of choice-based surveys and analysis—explains that Eichmann's fundamental errors reveal disregard for (or ignorance of) well-settled economic and statistical principles.

Fifth, Eichmann relies on fake data and information. Thus, in conducting his "market simulation," Eichmann created an entirely fictitious Polaris ATV, competitors, and economic market structure.

Sixth, neither Butler nor Eichmann validated their estimates, i.e., compared them to real-world data. That real-world data is contrary to their results, rending them unreliable.

Seventh, Eichmann failed to evaluate and report the margin of error for his damages estimates, rendering the estimates invalid as a matter of science and law.

Finally, Eichmann's estimate of class-wide cost-of-repair damages does not pass muster for expert work, as all Eichmann did was multiply some numbers provided to him by plaintiffs' engineering expert Jordan. But Eichmann never validated the numbers, selected an unrepresentative "midpoint," and performed basic (yet erroneous) math using that midpoint to come up with a class-wide damages number contrary to known market

facts. By design, the aggregate cost-of-repair damages numbers Eichmann calculated are inaccurate and unhelpful, and tell the Court nothing about individual or putative class member damages, if any.

In short, the work and opinions of both Butler and Eichmann should be excluded.

I. BUTLER PURPORTED TO CONDUCT A SURVEY TO DETERMINE CONSUMERS' ALLEGED "WILLINGNESS-TO-PAY" FOR POLARIS SPORTSMAN ATVS.

Butler conducted a conjoint consumer survey of internet panel respondents purportedly to test how a hypothetical warning about the alleged exhaust heat defect, delivered at the point-of-sale, affected past and prospective ATV customers' willingness-to-pay for Polaris ATVs. For purposes of her survey, Butler made up her own exhaust heat defect warning, ignoring actual exhaust heat warnings used by Polaris in official communications such as owners' manuals and recall notices.⁶

Based on her survey, Butler initially opined that, when informed about Butler's exhaust heat warning at the point of sale, prospective ATV consumers' willingness-to-pay for Polaris Sportsman ATVs declined "on average" by either \$1,593 (using responses of 435 survey respondents who remained after she excluded some from the initial 601) or

⁶ Ex. 2, Mizik Rep. ¶¶ 42-44, 56-59. Respondents in Butler's survey "test" group first saw a computer screen with logos of 5 ATV brands and Butler's warning about the Polaris brand; the survey control group saw the logos, with no warning. Then, after the test group was biased against the Polaris brand in this way, all were asked to decide whether to purchase a hypothetical Polaris ATV or some other brand's ATV. *Id.* ¶¶ 29-81

\$2,347 (after she excluded additional survey respondents leaving a group that included only 214 past ATV purchasers).⁷

In her March 2019 expert rebuttal report, Butler abandoned her initial work and switched to a completely different type of model to analyze her survey results. Butler's new analysis reported that "the decline in willingness to pay for the sample of 435 respondents increased from \$1,593 to \$1,614."

In reaching her opinions Butler *did not do* any of the following:

- She did not speak to any named plaintiff, ATV dealer or seller.⁹
- She did not consider actual marketplace data, such as the prices actually paid for ATVs or Polaris's ATV market share.¹⁰
- She did not consider information about exhaust heat and other safety warnings actually given by Polaris or other ATV competitors.¹¹
- She did not compare her results to any contemporaneous ordinary course of business consumer satisfaction surveys. 12
- She did not calculate any damages. 13

⁷ Ex. 3, Butler Rep. ¶¶ 70, 80-81, Tables 3-6.

⁸ Ex. 4, Butler Rebuttal Rep. ¶ 92.

⁹ Ex. 5, Butler Dep. 34:19-21; 38:10-39:10.

¹⁰ *Id.* 47:23-49:22.

¹¹ *Id.* 23:5-14; 33:17-34:17.

¹² *Id.* 23:22-24:13.

¹³ *Id.* 15:24-17:5; 19:1-19:5; 36:17-37:12; 58:25-59:7.

- She did not calculate a demand curve, as she does not know how to do so;¹⁴
 and
- She did not calculate a market price for any ATV at issue. 15

II. EICHMANN, RELYING UPON BUTLER'S SURVEY ESTIMATES, PURPORTED TO CONDUCT A "MARKET SIMULATION" TO ESTIMATE ALLEGED "OVERCHARGE" DAMAGES.

In his initial report, Eichmann purported to estimate the amount the entire class allegedly overpaid, in the aggregate, for Polaris ATVs. Eichmann claimed to have conducted a "market simulation" using Butler's willingness-to-pay estimates as evidence of a decline in the demand curve for an entirely fictitious Polaris ATV that Eichmann made up for his simulation, combined with supply side inputs for his imaginary ATV market. He used this market simulation to estimate the percentage overcharge purportedly paid by the class due to the lack of Butler's exhaust heat warning.

Eichmann admits he has never previously performed any market simulation, ¹⁶ but says he did so here by studying and relying on "extensive academic literature," including work by Polaris's expert Professor Peter Rossi. ¹⁷

In making his calculations, Eichmann estimated a uniform percentage by which each putative class member purportedly overpaid for a fictitious, non-existent "average"

¹⁴ *Id.* 116:10-13.

¹⁵ *Id.* 18:11-19:5.

¹⁶ Ex. 6, Eichmann Dep. 18:15-19:2.

¹⁷ Ex. 7, Eichmann Rep. ¶ 19.

Sportsman ATV.¹⁸ But Eichmann admits that (i) Polaris never manufactured or sold his "average" Sportsman; (ii) his hypothetical price was based on the weighted average of a single year's manufacturer's suggested retail price ("MSRP") for two Polaris Sportsman models in the Big Bore 1-Up segment (a segment that accounts for only of Polaris ATV sales); and (iii) the actual retail prices paid by ATV purchasers are typically not the MSRP but in fact varied from the MSRP.¹⁹ Eichmann initially opined that, if Butler's hypothetical warning had been provided, the prices for Polaris Sportsman ATVs would have been 7.2% lower than the prices alleged class members actually paid.²⁰ He then multiplied that 7.2% number by his estimate of Polaris's total revenue to estimate aggregate class-wide damages of

In his rebuttal report, Eichmann abandoned his previous opinions and presented a new market simulation (1) using results from Butler's second model for his demand curves, and (2) using different inputs for supply and different (but economically unsound) market

¹⁸ Ex. 7, Eichmann Rep. ¶ 24.

¹⁹ Ex. 6, Eichmann Dep. 33:10-34:4, 34:21-35:23, 36:18-22, 42:9-43:8; *see also* Ex. 8, Hitt Rep. $\P\P$ 20, 107.

²⁰ Ex. 7, Eichmann Rep. \P 26.

²¹ *Id.* ¶ 27

III. ALTERNATIVELY, EICHMANN PURPORTED TO ESTIMATE ALLEGED "REPAIR" DAMAGES.

As an alternative measure of damages, Eichmann purported to calculate the aggregate cost to repair all at-issue ATVs, relying on cost estimates prepared by plaintiffs' engineering expert, Colin Jordan. For Polaris 450/570 ATVs, Jordan estimated repair costs for different model years, arriving at (i) \$479.87 as the estimated cost to repair a MY 2017 2-Up, (ii) \$1,324.72 as the estimated cost to repair a MY 2014 or 2015 1-Up, and (iii) other specific costs for other models/model years. Rather than calculating alleged class-wide costs to repair by model year using Jordan's specific cost estimates, Eichmann used \$902.30 (the midpoint between \$478.87 for the MY 2017 2-Up and \$1,324.72 for the MY 2014 or 2015 1-Up), which he erroneously claims is the "average" cost of repair. He then multiplied that so-called "average" by the number of at-issue 450/570 ATVs to estimate a total cost-to-repair the 450/570 ATVs. Eichmann separately multiplied Jordan's \$150.29 estimate for 805/1000 ATVs by the number of at-issue 805/1000 ATVs to estimate the total cost-to-repair those models.²⁴

²² Ex. 9, Rossi Supp. Rep. ¶¶ 13-18; Ex. 10, McFadden Supp. Rep. ¶¶ 16-20; Ex. 11, McFadden Supp. Dep. 359:1-19, 387:8-388:8; Ex. 12, Rossi Supp. Dep. 102:12-103:14.

²³ Ex. 13, Eichmann Rebuttal Rep. ¶ 48.

²⁴ Ex. 7, Eichmann Rep. ¶¶ 28-32.

Although Eichmann relied on Jordan's cost estimates, he conducted no investigation or analysis to verify their validity.²⁵ Moreover, even though Eichmann acknowledged that costs, including labor, vary from consumer to consumer,²⁶ Jordan used cost-of-labor estimates from a single Palm Beach, Florida ATV dealer.²⁷ Eichmann did not estimate any individual plaintiff's cost-of-repair damages.²⁸

LEGAL STANDARDS

Under Rule 702 and *Daubert*, federal courts serve as gatekeepers to ensure that "any and all scientific testimony or evidence admitted is not only relevant, but reliable." 509 U.S. at 589; *see also Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 141 (1999). The proffering party must show by a "preponderance of proof" that the expert satisfies each of the *Daubert* admissibility requirements. *Daubert*, 509 U.S. at 592 n.10.

At the class certification stage, courts in this Circuit conduct "a focused *Daubert* analysis which scrutinize[s] the reliability of the expert testimony in light of the criteria for class certification and the current state of the evidence." *In re Zurn Pex Plumbing Prod. Liab. Litig.*, 644 F.3d 604, 614 (8th Cir. 2011). This undertaking requires a "rigorous analysis of the parties' claims to determine 'whether the defendant's liability to all plaintiffs may be established with common evidence." *Id.*; *see also In re Hardieplank Fiber Cement Siding Litig.*, 2018 WL 262826, at **1, 9, 11 (D. Minn. Jan. 2, 2018)

Ex. 6, Eichmann Dep. 139:16-22., 147:4-15, 148:23-14.

²⁶ Ex. 13, Eichmann Rebuttal Rep. ¶ 37.

²⁷ Ex. 14, Jordan Dep. 249:13-16.

²⁸ Ex. 6, Eichmann Dep. 146:1-147:15.

(excluding testimony at class certification stage where expert's methodology "is fundamentally flawed and untrustworthy and his opinions are unhelpful and unreliable.").

Unlike in *In re Zurn*, where discovery was bifurcated and there was only a limited record available at class certification, here, discovery is closed and hence qualifications, relevance, and reliability may be decided on the basis of a full evidentiary record. The Daubert inquiry at this stage is focused on common proof, including as to injury and damages—the ostensible purpose for which plaintiffs' experts are offered here.²⁹ In a class action, injury must be proved for each class member, and in determining whether to certify a class, the Court must determine whether proving individual injury will "overwhelm questions common to the class." See Halvorson v. Auto-Owners Ins. Co., 718 F.3d 773 (8th Cir. 2013). Evidence of how much the class as a whole was injured is insufficient; a class may not be certified unless plaintiffs can prove, by common evidence, that each member of the class was injured. See id. (reversing certification; predominance not satisfied where some members of the class likely suffered no injury) (citing Zurn, 644 F.3d at 616 ("A district court may not certify a class . . . if it contains members who lack standing.").

In this case, Butler's and Eichmann's work and opinions should be excluded for the following reasons.

²⁹ See Mem. in Support of Mot. for Class Certification at 32-34.

ARGUMENT

I. BUTLER AND EICHMANN ARE NOT QUALIFIED BY EDUCATION, TRAINING, OR EXPERIENCE TO OFFER THEIR SURVEY AND DAMAGES OPINIONS.

A. Butler Is Not Qualified.

Butler is not a damages expert and did not provide a damages opinion in this case.³⁰ Instead, her only role was to establish the alleged change in willingness-to-pay (*i.e.*, the "demand-side" of the market) based on her made-up exhaust heat warning about Polaris ATVs.³¹ In economics, the "demand curve" represents the amount of a good consumers are willing to buy at any given price; the supply curve shows the quantity that producers are willing to sell at a given price.³² The intersection of these two curves is the market equilibrium or market price for that good.³³ According to Eichmann, Butler's estimate of "[t]he difference in the willingness to pay . . . generates a measure of how demand for the Polaris Sportsman changes once the defect is revealed."³⁴

While the demand curve can be simply described, estimating one for purposes of determining damages requires specialized expertise in conjoint survey design and

³⁰ Ex. 5, Butler Dep. 16:16-17:9.

³¹ *Id.* 18:11-18:25.

³² Ex. 15, McFadden Rep. ¶ 41 & n.52

³³ *Id*.

Ex. 7, Eichmann Rep. ¶ 16; see also id. ¶ 19 ("The conjoint survey in Ms. Butler's report tells us about the demand side of the market").

analysis.³⁵ But Butler admits she is not an expert in estimating demand curves.³⁶ She was not asked in this case to construct a survey such that the resulting data could be used to estimate a demand curve,³⁷ and she did not estimate a demand curve.³⁸ In other words, Butler was not asked to and did not design a survey capable of providing the demand curve information Eichmann needed and assumed she was providing.

Instead, Butler claims to have designed a "conjoint" survey.³⁹ While she claims to be an expert in statistics and survey (including conjoint survey) design, implementation, and results, she has no degrees in economics, statistics, mathematics, survey designs, or marketing.⁴⁰ Instead, her claimed expertise is based on courses she took in statistics and survey design while pursuing her Master's Degree in Sociology.⁴¹ Moreover, Butler admits she has no formal training in or education about how to design a conjoint survey.⁴²

Butler made up the experimental-test/conjoint-survey approach she used in this case. Her design is contrary to accepted conjoint survey principles and unrecognized and

Ex. 16, Allenby, G, J. Brazell, J. Howell & P. Rossi, *Economic valuation of product features*, Quant Mark Econ (2014), at 455.

³⁶ Ex. 5, Butler Dep. 18:1-10; 116:14-19; 120:15-19.

³⁷ *Id.* 18:1-3; 116:14-19; 120:15-19.

³⁸ *Id.* 116:10-13.

³⁹ Ex. 3, Butler Rep. ¶ 25; see also Ex. 7, Eichmann Rep. ¶ 14.

⁴⁰ Ex. 3, Butler Rep., Ex. A at 2; Ex. 5, Butler Dep. 8:24-9:17.

⁴¹ Ex. 5, Butler Dep. 9:10-9:14.

⁴² *Id.* 9:23-10:5.

unsupported by peer-reviewed publications and conjoint experts. ** See Section II.C, infra; see also Wagner v. Hesston Corp., 450 F.3d 756, 760 (8th Cir. 2006) (district court did not abuse discretion in excluding expert as unreliable, given lack of testing, peer review, and general acceptance, and "evidence that the theories were developed in the context of litigation"); see also Rosen v. Ciba-Geigy Corp., 78 F.3d 316, 318 (7th Cir. 1996) ("[W]hen scientists testify in court "they must adhere to the same standards of intellectual rigor that are demanded in their professional work"). Butler cannot "testify on the basis of the collective view of [a] scientific discipline," but instead "offers personal opinion, not science." See Turpin v. Merrell Dow Pharm., Inc., 959 F.2d 1349, 1360 (6th Cir. 1992).

B. Eichmann Is Not Qualified.

The Federal Judicial Center has described the requisite qualifications necessary for an expert purporting to calculate economic damages:

The [damages] expert should be trained and experienced in quantitative analysis. For economists, the common qualification is the Ph.D. Damages experts with business or accounting backgrounds often have MBA degrees or other advanced degrees, or CPA credentials. Both the method used and the substance of the damages claim dictate [t]he specific areas of specialization the expert needs. In some cases, participation in original research and authorship of professional publications may add to the qualifications of an expert. However, relevant research and publications are not likely to be on the topic of damages measurement per se but rather on topics and methods encountered in damages analysis. For example, a damages expert may need to restate prices and quantities for a but-for market with more sellers than are present in the actual market. For an expert undertaking this task, direct participation in research on the relation between market structure and performance would be helpful.

⁴³ *Id.* 107:18-108:12.

Reference Manual on Sci. Evid. ("Ref. Man.") 425 (3d ed.), 2011 WL 7724259, *3.

Eichmann has none of these qualifications. He has no Ph.D., no MBA, and no degree of any kind in statistics, accounting, marketing, or engineering.⁴⁴ He has no relevant peer-reviewed publications,⁴⁵ and while he was briefly an "adjunct lecturer" at North Virginia Community College, he has never held a faculty position at that institution or any other college or university.⁴⁶

Eichmann has no relevant experience doing market simulation models or designing conjoint analyses. Instead, he relies entirely on the results of Butler's conjoint survey. But he played no role in her survey's design or in choosing the model to analyze the results, and did not verify or attempt to replicate the results. Like Butler, Eichmann is not qualified and has never attempted to design the specialized type of conjoint survey needed here. See Medalen v. Tiger Drylac U.S.A., Inc., 269 F. Supp. 2d 1118, 1127 (D. Minn. 2003) ("Both the Eighth Circuit Court of Appeals and the Supreme Court have made clear that a person, although qualified as an expert in one area of expertise, may be precluded from offering opinions beyond that expertise, or that are not founded on a reliable methodology.") (quoting Teska v. Potlatch Corp., 184 F. Supp. 2d 913, 918 (D. Minn. 2002)); see also Dura Auto. Sys. of Indiana, Inc. v. CTS Corp., 285 F.3d 609, 614 (7th Cir.

⁴⁴ Ex. 6, Eichmann Dep. 48:8-49:1.

⁴⁵ *Id.* 49:2-50:5.

⁴⁶ *Id.* 50:6-17.

⁴⁷ *Id.* 16:23-17:1.

2002) ("A theoretical economist, however able, would not be allowed to testify to the findings of an econometric study conducted by another economist if he lacked expertise in econometrics and the study raised questions that only an econometrician could answer.").

This case represents Eichmann's first ever attempt to present a market simulation calculation based on conjoint analysis. He admits there are no prior cases in which he sponsored any kind of market simulation or market-equilibrium calculations of the type reported in the academic literature cited in his report.⁴⁸

Finally, as discussed below, Eichmann's lack of qualifications is confirmed by the fundamental errors he made that are contrary to the scientific methods of experts he purports to follow, *i.e.*, the very experts—including Polaris's expert Professor Rossi—who developed the "extensive academic literature" on which Eichmann purported to rely for his opinions. Eichmann's opinions are contrary to basic economic principles, and his own testimony shows he does not understand how to conduct a market simulation using a conjoint analysis. *See* Section II.D, *infra*; *Smelser v. Norfolk S. Ry. Co.*, 105 F.3d 299, 303 (6th Cir. 1997) (court must examine witness' qualifications "not in . . . the abstract, but [must determine] whether those qualifications provide a foundation for a witness to answer a specific question").

⁴⁸ *Id.* 18:15-19:2, 62:6-64:25.

⁴⁹ Ex7, Eichmann Rep. 19 n.46.

II. BUTLER'S AND EICHMANN'S METHODOLOGY AND OPINIONS ARE IRRELEVANT, UNRELIABLE, UNRECOGNIZED, AND UNACCEPTED BY EXPERTS IN THE RELEVANT SCIENTIFIC FIELDS.

A. Eichmann's Opinions Are Entirely Dependent On Butler's Opinions.

Eichmann's damages estimates rely on the hypothesis that the market prices plaintiffs and the putative class paid for their ATVs would have been less had Polaris disclosed the alleged exhaust heat defect using Butler's made-up warning.⁵⁰ Rather than examine actual ATV market prices,⁵¹ Eichmann purported to conduct a "market simulation," which requires both a demand curve estimation and a supply curve estimation, to estimate what the market prices for Sportsman ATVs would have been if Butler's heat warning had been given at the time of purchase. Eichmann relies solely on Butler's willingness-to-pay estimates to provide the demand curves necessary for his purported "market simulation."⁵²

The fundamental problem, however, is that, unbeknownst to Eichmann, Butler admits that she did *not* estimate or supply him with a demand curve.⁵³ Eichmann's mistaken reliance on Butler's willingness-to-pay estimates was facially unreasonable, rendering his market simulation useless for computing market prices and his damages

⁵⁰ Ex. 6, Eichmann Dep. 21:15-23.

Section II.E discusses why Eichmann's and Butler's results are unreliable because they did not validate their results by examining real-world data.

⁵² See supra, Section I; see also Ex. 6, Eichmann Dep. 121:9-13 (stating that Butler's willingness-to-pay estimates "gives me what the shift in the demand curve would be").

⁵³ Ex. 5, Butler Dep. 116:10-13; see also Section I.A.

estimates unreliable speculation. *See Metro Sales, Inc. v. Core Consulting Grp., LLC*, 275 F. Supp. 3d 1023, 1055 (D. Minn. 2017) ("Because [the witness's] opinion regarding future lost profits is founded on unwarranted assumptions, his opinion is not sufficiently reliable to provide assistance to the factfinder.").

B. Butler's Survey Produces Irrelevant And Unreliable Estimates.

"The guiding principle in conjoint design . . . is that the conjoint survey must closely approximate the marketplace confronting consumers." Butler's conjoint, as designed and implemented, violates this principle because it is contradicted by the undisputed facts of this case. As a result, under both *Daubert* and Rule 702, Butler's opinions are irrelevant and inadmissible. *See*, *e.g.*, *Grp. Health Plan*, *Inc. v. Philip Morris USA*, *Inc.*, 344 F.3d 753, 761 (8th Cir. 2003) (holding that the expert's opinion that did not "fit" the facts and theory of liability "undermines the existence of a 'legal nexus between the injury and *the defendants' wrongful conduct*" and was inadmissible).

1. Butler's survey tested an incorrect and irrelevant proposition.

The threshold problem with Butler's survey is that it tested the wrong proposition. Respondents in her survey's "control group" were given no information about Polaris ATV exhaust heat, while those in her survey's "test group" received her fictional warning for Polaris ATVs. This approach did not reflect warnings and information consumers received in the real world. Thus, it is undisputed that Polaris ATVs provided warnings

⁵⁴ Ex. 16, Allenby, G, J. Brazell, J. Howell & P. Rossi, *Economic valuation of product features*, Quant Mark Econ (2014), at 433.

⁵⁵ Ex. 5, Butler Dep. 30:10-30:13.

both on the vehicle itself and in the Owner's Manual, which was (and is) available online and can be reviewed before purchase, alerting consumers that the ATV's exhaust system components become very hot and "can cause burns and fire." Moreover, the record contains abundant evidence, including from named plaintiffs themselves, about consumers' awareness of Polaris exhaust heat issues before purchasing their ATVs. For example, Polaris ATV customers learned about exhaust heat issues from a wide variety of sources including consumer reports in magazines and on websites, from dealers and/or prepurchase test drives, and from their own prior experiences. Accordingly, to test the effect of Butler's made-up exhaust warning, the relevant comparison should have been between (i) consumer preferences for ATVs with the heat information already available to consumers in the real world at the time of purchase. 58

Butler did no such comparison, claiming it was unnecessary to supply her control group with the actual warnings and information available to or known by consumers because she "understand[s]" those warnings were inadequate.⁵⁹ But her personal understanding is irrelevant. Actual Polaris warnings existed along with other information in the marketplace, and nothing allows Butler to ignore those facts and conduct a survey

⁵⁶ Ex. 17, POL SPT RJ 00010458.0024; Ex. 2, Mizik Rep. ¶¶ 56-59.

⁵⁷ Ex. 8, Hitt Rep. ¶ 85.

⁵⁸ Ex 2, Mizik Rep. ¶¶ 29, 56-69; Rossi Rep. 5-6.

⁵⁹ Ex. 4, Butler Rebuttal Rep. \P 34.

that compared her fictitious heat warning to no knowledge or warning information at all, rather than comparing it to the real-world warnings and available information.

Moreover, Butler admits she is no warnings expert,⁶⁰ which undercuts her survey's reliance on a fictional product warning. Because her "control" group was not provided any warning or information actually available to potential Polaris ATV purchasers, her survey tested the wrong proposition and its results are by definition irrelevant. *See THOIP v. Walt Disney Co.*, 690 F. Supp. 2d 218, 237 (S.D.N.Y. 2010) (excluding survey and opinions that "did not sufficiently approximate the manner in which consumers encountered the parties' products in the marketplace."); *Simon Prop. Grp. L.P. v. mySimon*, 104 F. Supp. 2d 1033, 1044 (S.D. Ind. 2000) (excluding survey that did not replicate marketplace by only presenting selected products, removing additional inputs available to real world consumers, and omitting information available to consumers).

2. Butler's survey omitted necessary information.

Butler's fictitious warning presented to her test group excluded information and context necessary to replicate consumers' actual purchasing environment.

For example, Butler's warning leaves out that (i) the majority of Polaris ATVs have never manifested an exhaust heat defect, and the low likelihood that the defect would manifest; (ii) Polaris provided a fix or remedy—which it did, even if plaintiffs contend it was not completely effective; and (iii) other ATV brands provide similar warnings.⁶¹

⁶⁰ Ex. 5, Butler Dep. 70:8-70:19.

⁶¹ Ex. 2, Mizik Rep. ¶¶ 29, 43, 57-58.

These omissions left survey respondents with a false choice between a Polaris ATV with an unrepaired, manifested exhaust heat defect, on the one hand, and other competitors' apparently defect-free ATVs, on the other.⁶² Butler's survey design is particularly egregious given the factual record of what potential ATV purchasers knew or could have known, as well as

an entirely artificial ATV purchasing environment divorced from the undisputed facts, in contravention of accepted conjoint survey methodology. 64 *Oracle Am., Inc. v. Google Inc.*, 2012 WL 850705, at *10 (N.D. Cal. Mar. 13, 2012) (rejecting a conjoint-based methodology as "unreliable because the features selected to be surveyed, only seven in total, were purposely few in number and omitted important features that would have played an important role in real-world consumers' preferences"); *see also THOIP*, 690 F. Supp. 2d at 237 (excluding survey as unreliable when expert failed to replicate marketplace conditions); *Simon Prop. Grp.*, 104 F. Supp. 2d at 1044 (similar).

3. Butler's survey violates additional conjoint design requirements.

Butler tainted her survey results in two additional ways. First, her non-standard survey design improperly put undue attention on her exhaust-heat warning for Polaris

⁶² Ex. 2, Mizik Rep. ¶¶ 42-44, 56-60.

⁶³ Ex. 18, POL_SPT_RJ_00007835 at 11-12.

⁶⁴ Ex. 2, Mizik Rep. ¶¶ 29-32 (citing Ben-Akiva, M, D. McFadden and K. Train, Foundations of Stated Preference Elicitation Consumer Behavior and Choice Based Conjoint Analysis, Working Paper at 8, 19 (2018)); Ex16, Allenby, G, J. Brazell, J. Howell & P. Rossi, Economic valuation of product features, Quant Mark Econ (2014), at 433.

ATVs by isolating it, presenting it separately in advance of the survey questions. This approach inherently biased the survey.⁶⁵ *See Townsend v. Monster Bev. Corp.*, 303 F. Supp. 3d 1010, 1049 (C.D. Cal. 2018) (excluding survey as unreliable; "Research . . . has shown that people tend to overweight whatever information is most salient or most accessible at a particular moment and neglect other relevant considerations") (citation omitted).

Second, Butler's survey omitted key attributes actual ATV purchasers find most important, such as steering, smartphone control and transmission shifting. ⁶⁶ Courts hold that where conjoint surveys "omit important features that would have played an important role in real-world consumers' preferences," such surveys are biased and unreliable. *See Oracle Am.*, 2012 WL 850705, at *10; *Townsend.*, 303 F. Supp. 3d at 1049 (excluding conjoint survey because, expert "failed to justify adequately [his] attribute selection"); *Visteon Glob. Techs., Inc. v. Garmin Int'l, Inc.*, 2016 WL 5956325, at *6 (E.D. Mich. Oct. 14, 2016) (similar). Such omissions lead to irrational results, as happened here, where, for an identical ATV, 49% of Butler's respondents prefer to pay a higher price, and 40% prefer

Ex. 2, Mizik Rep. ¶¶ 33-40; Ex. 19, Rossi Rep. 8-9; Ex. 20, McFadden Dep. 60:2-17, 142:17-144:3. Indeed, when the standard warning of each competitor ATV manufacturer that ATVs are hazardous to ride is presented in a survey along with Butler's Polarisspecific warning, Butler's finding of a decreased willingness-to-pay for Polaris ATVs disappears. Ex. 2, Mizik Rep. 47-55.

⁶⁶ Ex. 2, Mizik, Rep. ¶¶ 70-77; Ex. 19, Rossi Rep. 15-16; Ex. 20, McFadden Dep. 142:23-143:5, 145:16-146:7.

the allegedly defective Polaris to a non-defective Polaris.⁶⁷ See Oracle Am., 2012 WL 850705, at *11 ("The likely explanation for this irrational result is that survey respondents were not holding non-specified features constant and instead placing implicit attributes on features such as price.").

C. Butler's Methodology Violates Bedrock Scientific Requirements.

1. Butler's control and test group were dissimilar; thus causation cannot be proved.

As designed, Butler's survey defeated the purpose of a controlled test environment and violated its fundamental, defining features:

- Other than the variable being studied, members of the control group and the test group must be comparable in all factors that may influence the measurement of interest.
- To achieve this, each participant must be assigned randomly to either the control or the test group.

Ref. Man. 211, 2011 WL 7724256, *6.⁶⁸ If participants are not randomly assigned, one cannot assume the test results are caused by the condition being studied, rather than by pre-existing observed or unobserved differences between members of the control group and the test group. *Id*.

In drug trials, for example, the participants are randomly assigned to the control group (who receive a placebo), and the test group (who receive the drug), so that unobserved factors that might influence the result, such as genetics or diet, are assumed to

⁶⁷ Ex. 19, Rossi Rep. 28 & Ex. 5; Ex. 21, Rossi Supp. Dep. Ex. 18; Ex. 9, Rossi Supp. Rep. 36:5-38:25.

⁶⁸ See also Ex. 3, Butler Rep. ¶¶ 20, 22-23; Ex. 12, Rossi Supp. Dep. 47:1-20.

be evenly distributed between the two groups. If, however, those factors are not evenly distributed, then scientists say that "randomization failed," and the study cannot prove that it was the drug, and not some other factor, that produced favorable results in the test group." *Id.*

So too here. Butler's design was not a controlled test at all, because there were stark differences between Butler's two groups. As a result, she should have known that her survey could not prove anything about the effect of her warning because "differences in the groups that existed before [the experiment] may contribute to differences in the outcomes, or mask differences that otherwise would become manifest." Ref. Man. 211, 2011 WL 7724256, *6.69 For example, Butler does not dispute that the test group that received her fictitious warning had disproportionately fewer Polaris owners than the control group. A difference in brand loyalty may mask a respondent's pre-existing views about the safety of Polaris ATVs, contributing to different responses to Butler's warnings.

As the purported expert, Butler has the burden of showing that she followed the requisite scientific method, and that her control and test groups were randomly populated

⁶⁹ Ex. 12, Rossi Supp. Dep. 47:1-20.

⁷⁰ Ex, 2, Mizik Rep. ¶ 93; Ex. 4, Butler Rebuttal Rep.

Ex. 12, Rossi Supp. Dep. 47:1-20 (It is "particularly striking" that Polaris ownership—which "seems an obvious factor that might influence people's impact of the warning message"—differed between the control and test groups); Ex. 22, Mizik Supp. Rpt. ¶ 94 (finding that "brand-loyal Polaris ATV owners are more likely to choose Polaris whether they do or do not review Ms. Butler's warning. . . . Not surprisingly, when Butler's test and control groups are rebalanced to have similar observable characteristics, there is no statistically significant effect of Butler's warning.").

and comparable. 1 MOD. SCI. EVIDENCE § 4:42 (2018-2019 ed.). Because she cannot make that showing, her survey results are invalid. Ref. Man. 211, 2011 WL 7724256, *6; *POM Wonderful, LLC v. F.T.C.*, 777 F.3d 478, 495 (D.C. Cir. 2015) ("Random assignment of a study's subjects to treatment and control groups 'increases the likelihood that the treatment and control groups are similar in relevant characteristics, so that any difference in the outcome between the two groups can be attributed to the treatment.""). If there are observable differences, then scientists say randomization failed, and thus one cannot know whether these, or other, unknown differences may have contributed to the result. Ref. Man. 211, 2011 WL 7724256, *6 In short, Butler's survey does not and cannot be used to establish causation. *Id.*⁷²

2. Butler's novel methodology violates other basic principles of conjoint analysis.

In a properly designed and conducted conjoint survey, all respondents are provided with the same set of attributes and attribute levels, and are subject to variations in attributes across products.⁷³ Contrary to this fundamental principle, in Butler's survey, only the test group was exposed to a warning pertaining only to the Polaris brand.⁷⁴ Her novel design is unrecognized by experts in the field, has not been subject to peer review, and violates

[&]quot;The failure of randomization means that Ms. Butler cannot determine the effect of exposure to the warning using her data." Ex. 19, Rossi Rep. 18; Ex. 12, Rossi Supp. Dep. 49:14-17; Ex. 9, Rossi Supp. Rep. n.2,

⁷³ Ex. 2, Mizik Rep. ¶ 33-34.

⁷⁴ *Id*.

accepted scientific procedure. In short, Butler's inexperience and use of a novel, improper survey design rendered her data and opinions unreliable.

First, tying the Polaris brand (and no other) to the heat warning made it impossible to isolate the effect on willingness-to-pay of the warning, and biased respondents against the Polaris brand.⁷⁵

Second, Butler's survey design also made it impossible to provide data that could be used in estimating a demand curve to assess differences in willingness-to-pay attributable to her warning. To do that, the researcher needs data about each respondent's willingness-to-pay for the Sportsman ATV—with and without the warning—and thus each respondent must be shown the warning. A respondent could not, for example, compare A to B, if the participant is only is exposed to A or B, as was done with Butler's control and test groups. All Butler could do was report an average willingness-to-pay with and without the warning. A demand curve, however, cannot be created from a single data point, and her data could not therefore be used in a market simulation intended to estimate the effect of the warning on market price.

Third, Butler compounded this problem by analyzing her data using a statistical model that has not been used in 20 years by experts in the field to analyze conjoint survey

⁷⁵ Ex. 9, Rossi Supp. Rep. ¶ 5; Ex. 22, Mizik Supp. Rep. ¶ 16.

⁷⁶ Ex. 19, Rossi Rep. 16-17.

⁷⁷ Ex. 3, Butler Rep. ¶ 80.

⁷⁸ Ex. 19, Rossi Rep. 16-17.

results.⁷⁹ Professor McFadden, who invented that model, explains that it is inappropriate in this context because it employs what scientists now recognize is an incorrect assumption about how customers view substitution possibilities.⁸⁰ In response, Butler proposed a new statistical model using Maximum Simulated Likelihood, but with non-standard computer code. Both McFadden and Rossi, experts on conjoint analysis, re-ran the model with Butler's data and concluded her results were invalid.⁸¹ In fact, by merely varying the order in which the data is entered, Butler's method produced a different result: a purported decline in willingness-to-pay that was vastly different.⁸² But, as Professor Rossi observed, "two plus three is the same as three plus two," so varying the order of the data should have no effect whatsoever.⁸³

In short, Butler's hybrid controlled-test/conjoint-survey approach suffers from fundamental problems that render her results inherently unreliable. *See Marlo v. United Parcel Serv., Inc.*, 251 F.R.D. 476, 486 (C.D. Cal. 2008) ("Given its methodological and design problems, the . . . survey cannot qualify as common proof of misclassification

⁷⁹ Ex. 19, Rossi Rep. 13-14.

 $^{^{80}}$ Ex. 15, McFadden Rep. 29-37; Ex. 20, McFadden Dep. 60:23-64:6, 66:3-67:10, 149:20-153:12; $see\ also$ Ex. 2, Mizik Rep. \P 106-131.

⁸¹ Ex. 10, McFadden Supp. Rep. ¶¶ 5-15 & App'x C; Ex. 9, Rossi Supp. Rep. 6-12 & App.'x A; *see also* Ex. 11, McFadden Supp. Dep. 317:3-24 (stating that Butler committed "an egregious error. . . . Pure and simple, it's not something an acceptable scientific analysis should allow.").

⁸² Ex. 9, Rossi Supp. Rep. \P 5.

⁸³ Ex. 12, Rossi Supp. Dep. 57:12-22.

because it is unrepresentative, unreliable, and has essentially no probative value."). As a result, her willingness-to-pay estimates can neither properly be relied upon by Eichmann nor extrapolated to the putative class.

D. Eichmann's Purported Class-Wide "Overcharge" Damages Estimate Is Inherently Unreliable.

Eichmann never before conducted a market simulation and so attempted to rely on publications by experts in the field, including Professor Rossi.⁸⁴ But Professors Rossi⁸⁵ and McFadden, who developed the theory and methods purportedly used by Eichmann and Butler,⁸⁶ carefully reviewed Eichmann's market simulation, and found it contains significant economic and statistical errors, rendering it unreliable and useless.⁸⁷ *Magdaleno v. Burlington N. R. Co.*, 5 F. Supp. 2d 899, 905 (D. Colo. 1998) (excluding expert whose "methodology [was] not consistent with the methodologies described by the authors and experts whom [the expert] identifie[d] as key authorities in his field"); *Coffey v. Dowley Mfg., Inc.*, 187 F. Supp. 2d 958, 978 (M.D. Tenn. 2002), *aff'd*, 89 F. App'x 927

⁸⁴ Ex. 7, Eichmann Rep. ¶ 19 & n.46.

Ex. 19, Rossi Rep. 29-39; *id.* 31 ("[T]o evaluate the work of Mr. Eichmann we have to ask if he was able to calculate this counterfactual market price with valid assumptions. As Allenby et al explain, a market price must be based on a valid demand system, valid supply assumptions and a valid model of industry equilibrium. . . . [T]his problem is complex and requires specialized training in economics and econometrics which Mr. Eichmann does not have."); *id.* 30: ("Mr. Eichmann is not qualified to perform the market equilibrium calculations that he sponsored . . [and] has made a number of errors in the application of fundamental economic concepts and execution of his calculations which compound the fatal flaws made by Ms. Butler.").

Ex. 15, McFadden Rep. $\P\P$ 2-3.

⁸⁷ Ex. 10, McFadden Supp. Rep. ¶¶ 16-20.

(6th Cir. 2003) (expert's failure to comply with standards he recognized as authoritative "belies [his] claim that his theories are generally accepted").

Eichmann's errors demonstrate complete ignorance (and/or disregard) of well-settled, fundamental economic and statistical principles identified in the authorities upon which he purports to rely. See In re Baycol Prod. Litig., 596 F.3d 884, 892 (8th Cir. 2010) (expert's opinion was "based on conclusory statements, weak scientific evidence, and temporal proximity in the face of alternative explanations."); Magdaleno, 5 F. Supp. 2d at 905; Coffey, 187 F. Supp. 2d at 978.

Examples of Eichmann's disregard of accepted scientific procedures include:

► Reliance on a single ATV market segment out of many:

Eichmann restricted his market simulation to only one of the 9 ATV market segments in which Polaris competes, "Big Bore" 1-Up (single-rider ATVs with larger engines (over 600 cc)), which accounts for only of Polaris ATV sales.⁸⁹ He claimed data about this segment was the best he had.⁹⁰

If Eichmann lacked sufficient information on the actual vehicles at issue, then his decision to nevertheless estimate damages without such necessary information is grounds for exclusion. *See* Fed. R. Evid. 702(b) (expert "testimony [must be] based on sufficient

⁸⁸ Ex. 19, Rossi Rep. 29-39; Ex. 15, McFadden Rep. ¶¶ 38-46; Ex. 9, Rossi Supp. Rep. ¶¶ 13-17; Ex. 10, McFadden Supp. Rep. ¶¶ 16-20.

⁸⁹ Ex. 12, Rossi Supp. Dep. 107:15-109:7 & Ex. 24.

⁹⁰ Ex. 6, Eichmann Dep. 38:23-39:3.

facts or data"); see also Professional Standards, Natl. Assoc. of Certified Valuators and Analysts (NACVA), II.F ("A member shall obtain sufficient relevant data to afford a reasonable basis for conclusions, recommendations, or positions"); In re Baycol Prod. Litig., 532 F. Supp. 2d 1029, 1046-47 (D. Minn. 2007) (excluding expert who "admitted he could do a better analysis if he had reviewed the underlying data."); Laumann v. Nat'l Hockey League, 117 F. Supp. 3d 299, 315 (S.D.N.Y. 2015) ("[T]he law is clear: expert opinions are inadmissible if they are not 'based on sufficient facts or data,' or on a reliable application of scientific methods to those facts or data."); Fishman Transducers, Inc. v. Paul, 684 F.3d 187, 195 (1st Cir. 2012) (excluding expert who failed to obtain necessary data, without which "[the expert's] report was merely a basis for jury speculation").

Eichmann also assumed, without attempting to verify, that this Big Bore 1-Up market segment was representative of the others.⁹¹ But the actual price and market share data show that it is not,⁹² which is another reason Eichmann's estimates fail *Daubert*.

► <u>Creating a fictitious ATV and economically unrealistic market:</u>

Incredibly, Eichmann invented a fake Polaris ATV, assigning it a weighted average MSRP for the Polaris Sportsman 850 SP and Polaris XP 1000S.⁹³ He also (i) created a fictitious merger by combining several actual competitors into one, and (ii) used

⁹¹ Ex. 6, Eichmann Dep. 43:9-46:19.

 $^{^{92}}$ Ex. 8, Hitt Rep. ¶¶ 109-116.

⁹³ Ex. 6, Eichmann Dep. 42:9-43:5.

implausible ATV manufacturer profit margins.⁹⁴ It is one thing to undertake a market simulation using actual data and facts; it is quite another to do so using entirely fictitious products, market facts, data, and competitors. *Coffey*, 187 F. Supp. 2d at 974 ("[I]f Dr. Wilson assumed certain parameters for his computerized finite element analysis, and those parameters were later proven to be incorrect, then the conclusion reached by the computer model would also be incorrect.").

▶ Relying on MSRP: Eichmann used the MSRP in both (i) his calculation of Polaris's ATV revenues and (ii) his market simulation. But his use of MSRP is erroneous for two reasons. First, Eichmann estimated Polaris's ATV revenues by multiplying his estimate of the number of at-issue vehicles times MSRP. But MSRP is not what dealers paid to Polaris for the ATVs. Instead, MSRP is the "manufacturer's suggested retail price"—that is, the suggested price for dealers to charge ATV customers at retail. The MSRP number tells one nothing about the amount of Polaris's total revenues for the ATVs at issue. Second, Eichmann incorrectly uses MSRP as the market price dealers charge ATV customers. But, in fact, dealers often charge much less than MSRP as a result of individual price negotiations, competition, etc. That is why Eichmann concedes that MSRP is "not necessarily the prices charged by dealers," that many customers do not pay

 $^{^{94}}$ Ex 19, Rossi Rep. 37-39; Ex 8, Hitt Rep. ¶¶ 107, 112-15, 126-129; Ex. 9, Rossi Supp. Rep. ¶¶ 14-17; Ex. 10, McFadden Supp. Rep. ¶ 19.

 $^{^{95}}$ Ex. 8, Hitt. Rep. ¶ 120; Ex. 23, Hitt Dep. 250:17-253:17.

⁹⁶ Ex. 8, Hitt Rep. ¶¶ 107b, 66, 99, 117-125.

the MSRP, and that "for any make, model year, and trim of a Polaris Sportsman ATV that's at issue in this case, it's quite likely that the market price that consumers paid varied." ⁹⁷ Indeed, most ATVs sell at retail for less than MSRP, another reason why Eichmann's estimates are unreliable.

E. Butler And Eichmann Did Not Validate Their Results, Which Are Disproved By Actual Market Data.

Neither Butler nor Eichmann employed the scientific method, which requires external validation of their opinions. Ref. Man. 211, 2011 WL 7724256, *11 ("When there is an established way of measuring a variable, a new measurement process can be validated by comparison with the established one."); ⁹⁸ Dreyer v. Ryder Auto. Carrier Grp., Inc., 2005 WL 1074320, at *26, objections overruled, 367 F. Supp. 2d 413, 446 (W.D.N.Y. 2005) (Where "an expert fails to verify the accuracy of data upon which the expert creates a statistical analysis or renders an opinion, the resultant analysis and opinion are inherently unscientific requiring exclusion of such evidence under Daubert.").

As Eichmann admitted, "what people say they will do and what they actually do in the marketplace may not be the same," which is why economists who teach and write about use of conjoint survey data admonish that external validation is critical and survey results should be rejected if inconsistent with actual consumer preferences revealed in the

⁹⁷ Ex. 6, Eichmann Dep. 34:21-36:22.

⁹⁸ Ex. 20, McFadden Dep. 99:15-101:10 ("the conjoint methodology is still an emerging methodology"; "at this point in [conjoint surveys] development, the[y] are going to be secondary to real-market data").

⁹⁹ Ex. 6, Eichmann Dep. 30:1-31:2.

marketplace.¹⁰⁰ Here, the undisputed facts and Butler's own data contradict the results of her survey and Eichmann's estimates. For example:

- Actual ATV market data. Actual market data establishes that prices of new/used ATVs and Polaris market shares did not systemically decline after the recalls or issuance of the Polaris service advisories.¹⁰¹
- <u>Polaris's customer surveys.</u> Polaris's Vehicle Anniversary Survey and Early Buyer Survey, conducted in the ordinary course of business, show that actual owners provided consistently high ratings for Sportsman ATVs even when the owner indicated awareness of an exhaust heat issue or mentioned recalls, and even after the recall and service advisory notices. These contemporaneous surveys also show that most consumers did not in fact report any heat issues, and even among those who did, over half still expressed a high Polaris ATV satisfaction rating. Over half still expressed a high Polaris ATV satisfaction rating.
- Named plaintiffs' experiences. Had Butler or Eichmann interviewed the named plaintiffs or read their depositions, they would have learned that plaintiffs sometimes purchased their ATVs at dealer-negotiated prices, and with one exception (Kelley), rode them regardless of allegedly excessive heat. Johannessohn claims his original Sportsman 1000 experienced excessive heat and melting, and even caught fire. He requested and received a new replacement Sportsman 1000, which he regularly rides. And after filing suit, Johannessohn advertised his ATV to potential buyers as in "great condition" without mentioning any heat issue. Similarly, Wonders, knowing of the alleged heat issue, sold his ATV, advertising it as "[1]ike new" and "in excellent condition" and again, without mentioning any heat

¹⁰⁰ Ex. 15, McFadden Rep. ¶¶ 50-53; Ex. 19, Rossi Rep. 6-7. Eichmann concedes that actual market prices and other "revealed preferences" carry more weight than "stated preferences" in a survey. Ex. 6, Eichmann Dep. 31:4-31:20.

 $^{^{101}}$ Ex. 8, Hitt Rep. ¶¶ 82-103, 130-133.

 $^{^{102}}$ Ex. 2, Mizik Rep. ¶¶ 119-145.

 $^{^{103}}$ Ex. 4, Butler Rebuttal Rep. ¶ 64 & Table 14.

¹⁰⁴ Ex. 24, Johannessohn Dep. 11:3-14.

¹⁰⁵ *Id.* 208:20-22; 209:1-9.

¹⁰⁶ *Id.* 147:10-151:18.

issues.¹⁰⁷ Pinion purchased a second, used Sportsman 1000 ATV for his wife after he claims to have experienced the alleged excessive heat and, indeed, after filing this lawsuit.¹⁰⁸ Bates also described his ATV as in "[g]ood condition."¹⁰⁹

- <u>Polaris dealer experiences.</u> Had Butler and Eichmann interviewed dealers, they
 would have learned their survey and simulation do not replicate marketplace
 conditions in terms of ATV-purchase experience, including key attributes, customer
 experience and information with exhaust heat, ATV pricing, and market structure.¹¹⁰
- <u>Butler's own data.</u> Butler's data shows that over 40% of those she surveyed could have had no damages at all. Specifically, 40% of her survey respondents would have paid the same—or more—for a defective Polaris ATV compared to a Polaris ATV without her warning. Indeed, Butler admits her exhaust heat warning might have no effect whatsoever on Polaris ATV purchasers.

Because Butler's and Eichmann's opinions are unreliable speculation contradicted by the record evidence, they should be excluded. *See Concord Boat Corp. v. Brunswick Corp.*, 207 F.3d 1039, 1056-57 (8th Cir. 2000) (expert's opinion that ignored market facts was "mere speculation"); *see also Cole v. Homier Distrib. Co.*, 599 F.3d 856, 865 (8th Cir. 2010) ("[W]here, as here, the expert's analysis is unsupported by the record, exclusion of that analysis is proper"); *Kemp v. Tyson Seafood Grp., Inc.*, 2000 WL 1062105, at *6 (D. Minn. July 19, 2000) (excluding opinion that ignored contrary facts); *Bakst v. Cmty. Mem'l*

¹⁰⁷ Ex. 25, Wonders Dep. 101:14-20.

¹⁰⁸ Ex. 26, Pinion Dep. 61:4-17, 62:25-63:3, 94:8-15; 62:16-24.

¹⁰⁹ Ex. 27, Bates Dep. 48:8-18, 131:25-133:6.

¹¹⁰ Ex. 28, Basinger Decl.; Ex. 29, Dawson Decl.; Ex. 30, Flambures Decl.; Ex. 31, Stokes Decl.

¹¹¹ Ex. 9, Rossi Supp. Dep. Ex. 18; *id.* 36:5-38:25.

¹¹² Ex. 3, Butler Dep. 91:4-25.

Health Sys., Inc., 2011 WL 13214315, at *20 (C.D. Cal. Mar. 7, 2011) ("because [the expert's] damages calculation is based on factual assumptions that are entirely unsupported in the record, it fails [to] meet the second prong of Daubert"); Davidov v. Louisville Ladder Grp., LLC, 2005 WL 486734, at *1 (S.D.N.Y. Mar. 1, 2005) (excluding expert opinion as speculative where "an essential element of his theory is contradicted by the evidence in the case"), aff'd, 169 Fed. App'x 661 (2d Cir. 2006); Dora Homes, Inc. v. Epperson, 344 F. Supp. 2d 875, 888-89 (E.D.N.Y. 2004) (excluding expert opinion that was "in opposition to the well-documented facts"); Mink Mart, Inc. v. Reliance Ins. Co., 65 F. Supp. 2d 176, 180 (S.D.N.Y. 1999) (excluding expert opinions as speculative where theory was contradicted by the factual record and therefore not "grounded on verifiable propositions of fact").

III. EICHMANN FAILED TO REPORT ANY MARGIN OF ERROR AND HIS ESTIMATES WERE NOT STATISTICALLY SIGNIFICANT.

In determining the admissibility of expert evidence, "the court ordinarily should consider the known or potential rate of error." *Daubert*, 509 U.S. at 594. This is particularly true when a court considers the reliability of evidence based on sample data, see Ref. Man. 211, 2011 WL 7724256, *20, because any estimate based on a sample is "likely to be off the mark, at least by a small amount, because of random error." *Id.*; see also Paradise Ridge Def. Coal., Inc. v. Hartman, 2017 WL 3723636, at *6 (D. Idaho Aug. 29, 2017) ("No predictive model is perfect, and every result has a margin of error. Identifying that margin is key to determining whether the differences mean anything.").

The error rate for statistical evidence is expressed in terms of "confidence intervals" (a range of potential values) associated with a particular "confidence level," (*e.g.*, 95 percent). As Judge Posner has explained, "Confidence intervals (familiar as the 'margins of error' reported in predictions of election outcomes) are statistical estimates of the range within which there can be reasonable confidence that a correlation or prediction is not the result of chance variability in the sample on which the correlation or prediction was based." *ATA Airlines, Inc. v. Fed. Exp. Corp.*, 665 F.3d 882, 889, 895 (7th Cir. 2011). If the confidence interval includes zero, the estimate is not statistically significant, and hence unreliable. See also Ref. Man. 211, 2011 WL 7724256,*24-25, *56.

Eichmann admits that, without confidence intervals, a court has no means to assess whether the statistical analysis provides meaningful information. Indeed, prior to this case, Eichmann condemned another's expert's failure to provide confidence intervals in an article evaluating damages calculations in litigation. He noted the expert should have calculated "the standard errors of the coefficients, which allows [one] to calculate the confidence intervals (presumably 95% confidence intervals) around the resulting point estimate, "115 concluding:

¹¹³ Ex. 19, Rossi Rep. 23 ("Statistical significance is an assessment of whether or not a statistical estimate is discernably different from zero.").

¹¹⁴ Ex. 6, Eichmann Dep. 74:6-13 (agreeing "without a confidence interval, a court, who's looking at a point estimate, doesn't have a basis for assessing the statistical reliability of that point estimate....").

¹¹⁵ Ex. 32, Eichmann, Richard J., An Overview of Methods for Estimating Lost Revenues in Economic Damages (2015).

In that case . . ., the actual sales of the alleged impaired subject company were within the confidence interval generated by a hypothesis of no damage. This means that *the plaintiff's expert's own damages model suggested that no damages had taken place at all*, or that the damage model proposed by the plaintiff's damages expert was grossly inadequate in actually isolating out the alleged incremental impact of the subject company's sales as a result of the alleged tort. 116

In this case, however, Eichmann did not calculate or report confidence intervals associated with his own damages estimates, claiming it would be "irrelevant" to do so because he assumed—but never verified—that Butler's conjoint survey was properly done, that she had used a randomly selected, representative sample, and that her survey respondents were randomly assigned to the test/control groups. All of his assumptions are wrong and, even if not, they are beside the point. Nothing excuses Eichmann's failure to report confidence intervals for *his own estimates* derived from his own market simulation. Because Eichmann did not verify the confidence intervals associated with Butler's willingness-to-pay estimates, or compute confidence intervals for his own market simulation estimates, he "doesn't have a basis for assessing the statistical reliability" of those estimates, 118 and thus no basis for relying on them. Consequently, neither does this Court. 119 See Silicon Knights, Inc. v. Epic Games, Inc., 2011 WL 6748518, at *4 (E.D.N.C.

¹¹⁶ *Id.* (emphasis added); see also Ex. 6, Eichmann Dep. 65-71.

 $^{^{117}}$ Id. 82:1-19; 83:13-24; 84:1-87:21.

¹¹⁸ Ex. 6, Eichmann Dep. 74:6-13.

Polaris's expert Rossi calculated the confidence intervals for Eichmann's estimates. Rossi found a wide margin of error, which Eichmann does not dispute, *see* Ex. 13, Eichmann Rebuttal Rep., confirming that Eichmann's estimates are not scientifically reliable. Ex. 19, Rossi Rep. 39-41 & Ex. 7; Ex. 9, Rossi Supp. Rep. ¶ 18 & App'x B

Dec. 22, 2011) (granting motion to exclude testimony of purported expert who did not calculate a confidence interval for the assigned percentages); *Rivera-Maldonado*, 194 F.3d at 231 (vacating criminal sentence based on statistical estimate of number of violations where no confidence intervals were reported); *Paradise Ridge Def. Coal*, 2017 WL 3723636, at *6 ("Without confidence intervals, it is impossible to tell whether, say, E-2 (with 4.4 projected crashes) is safer than C-3 (with 4.7 projected crashes).... That is why a comparison of projected numbers must be accompanied by a confidence interval."); *Hospira, Inc. v. Amneal Pharm., LLC*, 285 F. Supp. 3d 776, 811 (D. Del. 2018) ("Since Dr. Linhardt provided no confidence intervals, he failed to establish the likelihood that any of his model's predictions for drug concentration represent true values."); *Sirrell v. State*, 780 A.2d 494, 502-03 (N.H. 2001) (noting that failure to produce confidence intervals for estimates of a ratio causes concern). 120

^{(&}quot;[T]here is no valid and reliable basis for using Mr. Eichmann's damages calculations for the proposed class."); see also In re Viagra Prod. Liab. Litig., 658 F. Supp. 2d 936, 945 (D. Minn. 2009) ("[T]he known rate of error is also meaningless if it is based on inaccurate data.").

The confidence intervals for Butler's first report estimate included zero, meaning she has failed to prove her warning leads to any change in willingness-to-pay for Polaris ATVs. Ex. 19, Rossi Rep. 23-26 & Ex. 4. The confidence interval for her rebuttal report estimate spans an enormously wide range of \$360 to \$2,869, Ex. 9, Rossi Supp. Rep. Table A4 at 12, which is too wide to support a non-speculative basis for an award of damages. *See ATA Airlines*, 665 F. 3d at 896 ("the confidence interval is so wide that there can be no reasonable confidence in the jury's damages award"). And, when Butler's estimates are re-weighted to take into account her non-representative sample and non-random test/control group assignments, her estimates used by Eichmann are no longer statistically significant. Ex. 2, Mizik Rep. ¶¶ 82-101; Ex. 22, Mizik Supp. Rep. ¶¶ 16-17 & App'x 7.

IV. EICHMANN'S ALTERNATIVE COST-OF-REPAIR DAMAGES ESTIMATE IS INACCURATE, UNRELIABLE, AND LEGALLY IRRELEVANT.

Alternatively, Eichmann estimates purported class-wide cost-of-repair damages for the alleged defect. To do this, he read the report written by another of plaintiffs' experts, engineer Colin Jordan. ¹²¹ Jordan proposed repair costs for each model year Sportsman ATV by (i) estimating the cost of parts to outfit the earlier model year ATVs to match the design Polaris developed for its 2018 Sportsman ATVs; and (ii) estimating the cost of labor, based on costs charged by a single Florida ATV dealer. ¹²² Actual labor costs vary widely and would depend upon the dealership where each purported class member would take their ATV for the repair. ¹²³ Jordan himself did not evaluate whether the repair he proposes (*i.e.*, bringing the earlier model year vehicles to match the design Polaris used in 2018 MY vehicles) would even address the defective condition alleged by plaintiffs. ¹²⁴

According to Eichmann, "the average cost is the best proxy for estimating the aggregate impact to all members of the proposed class." His estimates, however, were not based on average repair costs (which would also have been insufficient given the many individual repair cost variations). Instead, Eichmann took just two estimates calculated by

¹²¹ Ex. 6, Eichmann Dep. 139:16-140:7.

¹²² Ex. 14, Jordan Dep. 249:13-16.

¹²³ Ex. 8, Hitt Rep. ¶ 145.

¹²⁴ Ex. 14, Jordan Dep. 236:14-237:6; 245:22-247:2.

¹²⁵ Ex. 13, Eichmann Rebuttal Rep. ¶ 37.

Jordon: the one for the model year with the highest cost, and the one for the model year with the lowest cost. ¹²⁶ He then multiplied the total number of estimated at-issue ATVs by the *midpoint of the range between the highest and lowest repair cost.* ¹²⁷ As discussed below, this approach is simply bad math and provides no reliable basis for estimating aggregate or individual costs.

As an initial matter, Eichmann's numbers are unreliable because they rely on Jordan's cost estimates, which are unsound because (i) Jordan himself did not evaluate whether the repair he proposes would even address the alleged heat defect, and (ii) neither Jordan nor Eichmann took into account the individual costs actually paid or that actually would be paid by putative class members. Indeed, Eichmann concedes that plaintiffs' costs will vary and that none of these individualized costs are reflected in any of his (or Jordan's) calculations but would need to be determined through individual evidence:

To the extent any class members have already received that component, their receipt for the repairs would be lower. Likewise, any differences in cost of labor would be reflected in the receipts submitted by class members.¹²⁸

Eichmann's aggregate estimate assumes, without any support, that all at-issue ATVs will receive the repairs for the same cost. He does not know, and did not investigate, how many ATVs had the recall repair already implemented, how many manifested the alleged

¹²⁶ Ex. 7, Eichmann Rep. ¶¶ 29-30: Ex. 33, Jordan Rep. ¶ 26-27 & Ex. E

 $^{^{127}}$ Ex. 7, Eichmann Rep. ¶¶ 29-30.

 $^{^{128}}$ Ex. 13, Eichmann Rebuttal Rep. \P 37.

¹²⁹ Ex. 6, Eichmann Dep. 143:25-144:4.

exhaust heat defect, whether the proposed repair remedy could even be implemented, much less work, in each ATV model, or how much it would cost to conduct the repair for each ATV model. 130

Without making any effort to take into account how individual costs vary from Jordan's estimates, Eichmann cannot use Jordan's estimates to calculate either an average cost or aggregate damages. Although an expert may, in some circumstances, rely on data collected by another expert, "he must conduct some independent research to show that the calculations are reliable." *Moore v. BASF Corp.*, 2013 WL 620268, at *3 (E.D. La. Feb. 19, 2013); *Bruno v. Bozzuto's, Inc.*, 311 F.R.D. 124, 144 (M.D. Pa. 2015) (similar); *In re TMI Litig.*, 193 F.3d 613, 716 (3d Cir. 1999), *amended*, 199 F.3d 158 (3d Cir. 2000) (expert properly excluded due to "failure to assess the validity of the opinions of the experts he relied upon together with his unblinking reliance on those experts' opinions"). Eichmann did no such research.

Finally, Eichmann's estimates are contrary to fundamental mathematical principles. One can calculate a total by multiplying the number of units by a mathematical average; but using the midpoint as Eichmann did cannot lead to a properly calculated total (except by pure chance—*i.e.*, if the midpoint and the average happen to have the same value). ¹³¹ *Cf.* 1 MOD. SCI. EVIDENCE § 5:30 (2018-2019 ed.) ("To get the total award, just multiply the mean by the number of awards; by contrast, the total cannot be computed from

¹³⁰ *Id.* 144:23-145:21; 146:1-14; 150:5-14.

¹³¹ Ex. 8, Hitt Rep. ¶ 146 (Eichmann calculates midpoints not averages).

the median.").¹³² Eichmann's choice of the "midpoint" rather than the mean/average to determine an aggregate renders his calculation fundamentally erroneous and unreliable. *See* Macfie, Brian P. and Philip M. Nufrio, APPLIED STATISTICS FOR PUBLIC POLICY (Routledge, 2017), 97 (The midpoint is "easily calculated" but "an outlier easily distorts it . . . Given [its] obvious shortcomings, its usefulness as a measure of central tendency is extremely limited.").¹³³

CONCLUSION

The Court should exclude the opinions of Butler and Eichmann generally, and with respect to the plaintiffs' class certification motion. Neither are qualified; both violated the accepted scientific requirements for doing their work; and the results of their analyses and opinions are unreliable speculation contrary to known facts and actual market data.

The concept of the median is distinct from the midpoint, with the midpoint being "less frequently used" than either the mean or the median, due to its "extremely limited" usefulness. Ex. 34, Macfie, Brian P. and Philip M. Nufrio, APPLIED STATISTICS FOR PUBLIC POLICY (Routledge 2017), 97. Like the median, the midpoint cannot be used to calculate an aggregate total; only the mean can be used to do so, since the mean, by definition, is calculated using the total of all numbers in the set, such that the total can be re-calculated from the mean.

As with his "market simulation" estimates, Eichmann did not calculate the margin of error associated with his cost-of-repair estimates, despite his concession that there will be variability in such costs. Thus, for the same reason that the reliability of his market simulations estimates cannot be evaluated and must be excluded, *see* Section III, *supra*, his cost-of-repair estimates must also be excluded.

Dated: June 21, 2019 Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on June 21, 2019, I served the foregoing Defendant Polaris Industries Inc.'s Memorandum In Support Of Its Motion To Exclude The Opinions Of Sarah Butler And Richard J. Eichmann Under Rule 702 And *Daubert* through CM/ECF to all parties of record.

/s/ Wendy Wildung
Wendy Wildung